UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,238	09/19/2005	Nac Hyuck Chang	51876P723	1833

8791 7590 01/10/2008

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
1279 OAKMEAD PARKWAY
SUNNYVALE, CA 94085-4040

EXAMINER	
SIM, YONG H	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
01/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,238	CHANG ET AL.	
	Examiner	Art Unit	
	Yong Sim	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,6 and 9-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,6 and 9-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/13/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1 – 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 1 - 2, 5 - 6 and 9 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cui (US 2003/0001815 A1) in view of Takeuchi et al. (Hereinafter "Takeuchi" US 6,690,344 B1).**

Re claim 1, Cui teaches an apparatus for processing visual signals to be displayed on a liquid crystal display (LCD), comprising:

a receiving means for receiving LCD backlight intensity information from an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) having the LCD (215 "flat panel monitor screen/LCD" Fig. 2a. The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

; an adaptation means for adapting one of brightness and contrast of the visual signal based on the received LCD backlight intensity information;

a transmitting means for transmitting the adapted visual signal to the end user terminal [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight

brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

But does not expressly describe receiving backlight intensity information over a network a network from an end user terminal and transmitting the adapted visual signal over the network to the end user terminal.

However, Takeuchi teaches a display driving device wherein the brightness is adjusted when the brightness of the display has deteriorated by notifying a central facility and receiving the brightness correction value from the central facility via network to the display to maintain the display brightness at nearly the same level as the initial brightness (Takeuchi: Col. 41, lines 1 – 37).

Therefore, taking the combined teachings of Cui and Takeuchi, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of sending brightness information over the network as taught by Takeuchi into the apparatus for processing visual signals to be displayed on a liquid crystal display as taught by Cui to obtain an apparatus for processing visual signal to be displayed on a liquid crystal display wherein the LCD brightness intensity is measure and the information is sent via network to receive an adjusted image over the network to

maintain the display brightness at nearly the same level even when the display brightness deteriorate due to aging.

Re claim 2, Cui teaches wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value Y to a value Y', the adaptation means adapts the original pixel value of the visual signal to a pixel value proper for the value Y' [Para 0021; "In order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y'.]

Re claim 5, Cui teaches a method for processing (105 "processor" Fig. 1) visual signal to be display on a liquid crystal display (LCD), comprising the steps of:

a) receiving LCD backlight intensity information from an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) having the LCD (215 "flat panel monitor screen/LCD" Fig. 2a. The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

b) adapting one of brightness and contrast of the visual signal based on the received LCD backlight intensity information;

c) transmitting the adapted visual signal to the end user terminal [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

But does not expressly describe receiving backlight intensity information over a network a network from an end user terminal and transmitting the adapted visual signal over the network to the end user terminal.

However, Takeuchi teaches a display driving device wherein the brightness is adjusted when the brightness of the display has deteriorated by notifying a central facility and receiving the brightness correction value from the central facility via network to the display to maintain the display brightness at nearly the same level as the initial brightness (Takeuchi: Col. 41, lines 1 – 37).

Therefore, taking the combined teachings of Cui and Takeuchi, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of sending brightness information over the network as taught by Takeuchi into the method for processing visual signals to be displayed on a liquid crystal display as taught by Cui to obtain a method for processing visual signal to be displayed on a liquid crystal display wherein the LCD brightness intensity is measure and the information is sent via network to receive an adjusted image over the network to maintain the display brightness at nearly the same level even when the display brightness deteriorate due to aging.

Re claim 6, Cui teaches wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value Y to a value Y', the pixel value of the visual signal is adapted to a pixel value proper for the value Y' in the step b) [Para 0021; "In order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y'.].

Re claim 9, Cui teaches an apparatus for processing visual signal, comprising:

an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) with a liquid crystal display (LCD) (215 "flat panel monitor screen/LCD" Fig. 2a. The

monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

for generating and transmitting LCD backlight intensity information [Para 0021; "image brightness is detected in response to adjusting backlight brightness." Backlight information must be generated in order to be detected for image adjustment.], and displaying a visual signal on the LCD;

a receiving means for receiving the LCD backlight intensity information from the end user terminal;

an adaptation means for adapting one of or both of brightness and contrast of the visual signal based on the received LCD backlight intensity information; and

a transmitting means for transmitting the adapted visual signal to the end user terminal [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means)

program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

But does not expressly describe receiving backlight intensity information over a network a network from an end user terminal and transmitting the adapted visual signal over the network to the end user terminal.

However, Takeuchi teaches a display driving device wherein the brightness is adjusted when the brightness of the display has deteriorated by notifying a central facility and receiving the brightness correction value from the central facility via network to the display to maintain the display brightness at nearly the same level as the initial brightness (Takeuchi: Col. 41, lines 1 – 37).

Therefore, taking the combined teachings of Cui and Takeuchi, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of sending brightness information over the network as taught by Takeuchi into the apparatus for processing visual signals to be displayed on a liquid crystal display as taught by Cui to obtain an apparatus for processing visual signal to be displayed on a liquid crystal display wherein the LCD brightness intensity is measure and the information is sent via network to receive an adjusted image over the network to maintain the display brightness at nearly the same level even when the display brightness deteriorate due to aging.

Re claim 10, Cui teaches wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value Y to

a value Y', the adaptation means adapts the original pixel value of the visual signal to a pixel value proper for the value Y' [Para 0021; "In order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y'.].

Re claim 11, Cui teaches wherein the end user terminal dynamically generates the LCD backlight intensity information according to the visual signal display on the LCD (Para 0021; "the backlight brightness of a flat-panel display monitor may be adjusted to satisfy a computer system power consumption target when the computer system is operating on either battery power or AC power. The backlight must be dynamically adjusted In order to satisfy the consumption target of the system.).

Re claim 12, Cui teaches a method for processing visual signal in a system comprising an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) with a liquid crystal display (LCD) (215 "flat panel monitor screen/LCD" Fig. 2a. The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

and an adaptation apparatus (Para 0021; The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed. The program which, is an adaptation means, must be stored in an apparatus such as a memory chip.), comprising the steps of:

a) in the end user terminal, generating and transmitting LCD backlight intensity information to the adaptation apparatus [Para 0021; "image brightness is detected in response to adjusting backlight brightness." Backlight information must be generated in order to be detected for image adjustment.];

b) in the adaptation apparatus, receiving the LCD backlight intensity information from the end user terminal;

c) in the adaptation apparatus, adapting one of or both of brightness and contrast of the visual based on the received LCD backlight intensity information;

d) in the adaptation apparatus, transmitting the adapted visual signal to the end user terminal; and

e) in the end user terminal, receiving and displaying the adapted visual signal on the LCD [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image

detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

But does not expressly describe receiving backlight intensity information over a network a network from an end user terminal and transmitting the adapted visual signal over the network to the end user terminal.

However, Takeuchi teaches a display driving device wherein the brightness is adjusted when the brightness of the display has deteriorated by notifying a central facility and receiving the brightness correction value from the central facility via network to the display to maintain the display brightness at nearly the same level as the initial brightness (Takeuchi: Col. 41, lines 1 – 37).

Therefore, taking the combined teachings of Cui and Takeuchi, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of sending brightness information over the network as taught by Takeuchi into the method for processing visual signals to be displayed on a liquid crystal display as taught by Cui to obtain a method for processing visual signal to be displayed on a liquid crystal display wherein the LCD brightness intensity is measure and the information is sent via network to receive an adjusted image over the network to maintain the display brightness at nearly the same level even when the display brightness deteriorate due to aging.

Re claim 13, Cui teaches wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value Y to a value Y, the pixel value of the visual signal is adapted to a pixel value proper for the value Y' in the step c) [Para 0021; "In order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y'.].

Re claim 14, Cui teaches wherein the step a) includes dynamically generating the LCD backlight intensity information according to the visual signal displayed on the LCD (Para 0021; "the backlight brightness of a flat-panel display monitor may be adjusted to satisfy a computer system power consumption target when the computer system is operating on either battery power or AC power. The backlight must be dynamically adjusted In order to satisfy the consumption target of the system.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Sim whose telephone number is (571) 270-1189. The examiner can normally be reached on Monday - Friday (Alternate Fridays off) 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YHS
1/05/2008

AMR A. AWAD
SUPERVISORY PATENT EXAMINER